

Year 9 Sets 5-6

The year 9 curriculum is designed to give students the opportunity to consolidate and extend their skills from year 7 and 8, whilst learning how to apply their skills to a range of real-life contexts. This will ensure that students are truly ready to start their GCSE journey in year 10.

	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Knowledge & Skills Overview	<p>Number Skills Solve a range of abstract and contextual problems using negatives, powers, roots and standard form.</p> <p>HCF, LCM and Estimation Use properties of integers, as well as rounding to calculate or estimate solutions to contextual problems.</p> <p>Expressions Use a wide variety of algebraic manipulation skills to solve a mix of abstract and contextual problems.</p>	<p>2D & 3D Shapes Construct and classify 2D shapes based on their properties. Represent 3D shapes in various 2D forms like nets or isometric drawings.</p> <p>Fractions Solve a range of contextual problems using all the calculating with fractions skills + − × ÷</p>	<p>Indices Apply the index laws to expressions with numerical or algebraic bases. Use these skills to build on your understanding of expanding and factorising.</p> <p>Percentages Solve contextual problems involving the full range of percentage skills – both with, or without a calculator.</p>	<p>Formulae and Equations Confidently form expressions, equations or formulae from a context. Use manipulation skills to simplify expressions, solve equations or rearrange formulae.</p> <p>Area & Perimeter Solve a range of contextual problems involving area or perimeter of 2D shapes including circles.</p>	<p>The Data Handling Cycle Hypothesise, collect data, calculate statistics, analyse and present data, evaluate findings. Apply this principle to real data.</p> <p>Sequences Solve a range of abstract and contextual problems involving linear patterns or number sequences. Begin to work with quadratic sequences.</p>	<p>Linear Graphs Solve problems by applying knowledge of abstract linear graphs to real life contexts involving rates that may be described graphically</p> <p>Ratio & Proportion Consolidate fluency with ratio skills from Y7 & 8 and apply to more complex contexts.</p> <p>Angles & Reasoning Begin to use formal notation and geometric reasoning statements to explain the steps taken in angle problems.</p>
Opportunities for Recall & Retrieval of Prior Learning	<p>From Year 8</p> <ul style="list-style-type: none"> • Four operations • Index laws • HCF & LCM • Algebraic manipulation 	<p>From Year 8</p> <ul style="list-style-type: none"> • Fractions & decimals • Perimeter • Area & Volume 	<p>From Year 8</p> <ul style="list-style-type: none"> • Index Laws • Algebraic manipulation • Fractions & decimals 	<p>From Year 8</p> <ul style="list-style-type: none"> • Algebraic manipulation • Form & solve equations • Area (& Volume) 	<p>From Year 8</p> <ul style="list-style-type: none"> • Averages • Probability • Sequences • Linear Graphs • Algebra manipulation 	<p>From Year 8</p> <ul style="list-style-type: none"> • Sequences • Linear Graphs • Ratio & Proportion • Fractions & decimals • Angles
	<p>From Year 9</p> <ul style="list-style-type: none"> • Powers and roots within expressions • Use of HCF when factorising algebraic expressions 	<p>From Year 9</p> <ul style="list-style-type: none"> • HCF for common denominators • Simplifying fractions involving algebraic expressions 	<p>From Year 9</p> <ul style="list-style-type: none"> • Powers & roots for indices • Expand & factorise with powers using index laws • Manipulating fractions 	<p>From Year 9</p> <ul style="list-style-type: none"> • Expressions • Powers & roots • Index laws • 2D shapes • Fraction calculations • Equations in area & perimeter 	<p>From Year 9</p> <ul style="list-style-type: none"> • Number skills in calculating statistics • Fraction calculations • Percentages within data • Solving equations 	<p>From Year 9</p> <ul style="list-style-type: none"> • Expressions • Equations • Sequences • Fractions & ratio • Angle properties of 2D shapes

Year 9 Sets 1-4

The year 9 curriculum is designed to give students the opportunity to consolidate and extend their skills from year 7 and 8, and progress to the more advanced abstract skills and problem solving within geometry, number and algebra. This will ensure that students are truly ready to start their GCSE journey in year 10.

	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Knowledge & Skills Overview	<p>Number Skills Solve a range of abstract and contextual problems using decimals, negatives, properties of integers (including HCF LCM) and estimation.</p> <p>Index Laws Evaluate and apply index laws with negative and/or fractional powers without a calculator. $+$ $-$ \times \div standard form</p> <p>Expressions Use a wide variety of algebraic manipulation skills to solve a mix of abstract and contextual problems.</p>	<p>Formulae & Equations Confidently form expressions, equations or formulae from a context. Use manipulation skills to simplify expressions, solve equations or rearrange formulae.</p> <p>Area & Volume Calculate the area of 2D shapes including circles. Find the surface area and volume of 3D prisms. Work with compound units like density and pressure.</p>	<p>The Data Handling Cycle Hypothesise, collect data, calculate statistics, analyse and present data, evaluate findings. Apply this principle to real data</p> <p>Fractions Solve a range of contextual problems using all the calculating with fractions skills $+$ $-$ \times \div. Apply these skills to algebraic fractions.</p>	<p>Difficult Decimals Explore rational and irrational numbers, as well as recurring and terminating decimals. Perform $+$ $-$ \times \div with surds, as well as rationalising the denominator</p> <p>Sequences Explore a range of linear, quadratic, and geometric sequences. Use iterative processes to generate sequences.</p>	<p>Percentages Solve contextual problems involving the full range of percentage skills – both with, or without a calculator.</p> <p>Linear Graphs Find and use the equation of a straight line to solve a range of coordinate geometry problems on an axes grid.</p>	<p>Ratio & Proportion Move fluently between ratio and fractions. Solve a range of ratio and proportion problems where quantities are shared in complex ways.</p> <p>Angles & Reasoning Know and use formal geometric notation to articulate reasoning when solving angle problems. Begin to write formal geometric proofs.</p> <p>Simple Proof Use algebra to proof simple numerical facts</p>
Opportunities for Recall & Retrieval of Prior Learning	<p>From Year 8</p> <ul style="list-style-type: none"> Four operations Index laws HCF and LCM Algebraic Manipulation 	<p>From Year 8</p> <ul style="list-style-type: none"> Algebraic Manipulation Solving equations Area & Volume 	<p>From Year 8</p> <ul style="list-style-type: none"> Fractions & decimals Algebraic manipulation Averages Probability 	<p>From Year 8</p> <ul style="list-style-type: none"> Fractions and decimals Short & long division Index laws Sequences 	<p>From Year 8</p> <ul style="list-style-type: none"> Algebraic manipulation Linear graphs Solving equations Percentages 	<p>From Year 8</p> <ul style="list-style-type: none"> Ratio & Proportion Fractions & decimals Algebraic manipulation
	<p>From Year 9</p> <ul style="list-style-type: none"> Applying index laws to algebra HCF when factorising expressions 	<p>From Year 9</p> <ul style="list-style-type: none"> Algebraic manipulation within equations and formulae Number skills and algebra within area and volume 	<p>From Year 9</p> <ul style="list-style-type: none"> Number skills for fractions Index laws and factorising skills for simplifying algebraic fractions 	<p>From Year 9</p> <ul style="list-style-type: none"> Index laws related to $+$ $-$ \times \div with surds Fractions Formulae & Equations Algebra skills for recurring decimals to fractions 	<p>From Year 9</p> <ul style="list-style-type: none"> Manipulating expressions Substitutions Use of formulae and equations with Linear Graphs 	<p>From Year 9</p> <ul style="list-style-type: none"> Fractions Number skills & algebraic ratio within ratios Forming algebraic expressions & equations